

SP-II/CSC/201/C-1B/18

B.Sc. Semester-II (Programme) Examination, 2018**COMPUTER SCIENCE****Subject Code : 21504****Course Code : SP/CSC/201/C-1B****Course Title : Database Management System****Time: 1 Hr. 15 Mins.****Full Marks: 25***The figures in the margin indicate full marks.**Candidates are required to give their answers in their own words as far as practicable.**The questions are of equal value.*

1. Answer *any five* questions: 1×5=5
- What is a file?
 - What is database system?
 - What is Cardinality ratio?
 - What is the full form of SQL?
 - What do you mean by Relational data model?
 - What is foreign key?
 - What is lossless join?
 - What do you mean by functional dependency?
2. Answer *any two* questions: 5×2=10
- Describe the different forms of data independence in brief.
 - Draw an ERD for students' information system of a college. [The necessary assumptions are to be made by examinees]
 - Explain the role of the following two operators in relational algebra with suitable examples:
Projection (Π)
Set-difference ($-$) 2.5+2.5=5
 - Describe the different types of anomalies in brief.
3. Answer *any one* question: 10×1=10
- Describe the various advantages of database system over the traditional file processing system in brief.
 - State the step-by-step procedure for normalizing a relation scheme into 3NF. Distinguish between 3NF and BCNF. 6+4=10